been worked out in detail and includes numerous minor faults. The great importance of the work lies in the establishing of the Ordovician, Silurian, and Devonian seas in the region. The similarity of the Ordovician fauna of this region with that of Minnesota and Wisconsin indicates they were all part of the same invasion. Good faunal lists are given.

A. C. McF.

Maps and Sections to Accompany Report on Contributions to the Study of the Geology and Ore Deposits of Kalgoorlie, East Coolgardie Goldfield. Perth: Geological Survey of Western Australia, Bulletin 69, Part III, 1917.

The gold deposits at Kalgoorlie, Australia, are of two types, the gold-quartz veins and the gold-telluride deposits. The bed rock of the region outside of some minor metamorphosed sediments consists of granite and amphibolite schists. It is with the last-named that the gold is usually found. *Bulletin 69* consists of fourteen plates showing the areal and structural geology of the region.

A. C. McF.

Eleventh Biennial Report of the State Geologist on the Mineral Industries and Geology of Vermont. By GEORGE H. PERKINS, *et al.* Burlington, 1917–18. Pp. 209, pls. 18, figs. 10.

The present report consists of a number of contributions by different authors on the geology of the state of Vermont. These are as follows:

I. "Physiography of Vermont," by G. H. PERKINS.—The discussion and description of the physiography is given in a popular though thorough style. The physiographic history, which is rather complex, is well summarized. The mountain areas include regions of complex igneous and metamorphic history. Most of the large rivers are old and antecedent in character. The author believes that most of the lakes of the state are glacial in origin.

II. "The Ordovician Terranes of Central Vermont," by CHARLES H. RICHARDSON.—The formations discussed are all pre-Trenton in age and include, from base upward, the Irasburg conglomerate, the Memphremagog slates, and Waits River limestone. A brief summary of the geologic history of the state is given.

III. Post-Glacial Sea-Level Waters in Eastern Vermont," by H. L. FAIRCHILD.—Mr. Fairchild describes the post-glacial marine features found in the eastern part of the state, thus supplementing an earlier